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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
NOBAHAR, ABDULHAKIM	
ART UNIT	PAPER NUMBER
2432	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/692,259	SHAVIT, EYAL	
	Examiner	Art Unit	
	ABDULHAKIM NOBAHAR	2432	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 August 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *112,114,116-126,129-144,147-151,153,154,157 and 161* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *112,114,116-126,129-144,147-151,153,154,157 and 161* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to applicant's amendment filed on 08/27/2010.

2. Claims 112, 114, 116-126, 129-144, 147-151, 153, 154, 157 and 161 are pending.

Response to Arguments

1. Applicant's arguments have been fully considered but they are not persuasive.

2. Applicant argues that:

Chang, on the other hand, fails to teach or even suggest the use of an exclusive-OR operation for updating its watermark with a consumer's identification data IDxxxx. Therefore, the Final Office Action relies on newly cited Endoh as teaching this element of Claim 112. However, such reliance is unwarranted since Endoh's use of an exclusive-OR (XOR) function is intended to be used in a copy-once system (page 11 of remarks), and

Although Endoh performs XOR operations for encoding and decoding an information source, its technique is not suitable for including copier related information for each copy in a succession of copies (since it is a copy-once technique), as previously explained in reference to claim 112. Thus, even if Endoh's recording/reproducing system were allowed to make more than one copy, "information of an original copy of the content" would not be detectable because such information is eliminated during a subsequent reproduction of the information source.

Examiner respectfully disagrees and asserts that usage of exclusive-OR (XOR) is an old and well known practice in the art and the usage of XOR by prior art Endoh regardless of its purpose is an example of this practice. However, prior art Chang teaches the same features of the instant invention updating the watermark embedded in the content material being transferred from one consumer to another consumer by adding the consumer's ID to the watermark instead of using an XOR operation. The adding (i.e., concatenation) operation in the prior art Chang is easily replaceable by an XOR operation without any affect on the result of the Chang's system or on the content material. The way XOR operation is used in Endoh does not prevent a person skilled in the art to use it in Chang on the embedded watermark each time the content material is transferred to another consumer in a succession of transfers.

Therefore, a person skilled in the art would have been able and motivated at the time of the invention was made to modify Chang to implement an XOR operation as taught in Endoh instead of a direct addition operation to update the embedded watermark.

3. Examiner, however, in light of the above submission maintains the previous rejections as follows:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 112, 114, 116-126,129-144, 147-151, 153, 154, 157 and 161 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al (2003/0125964 A1; hereinafter Chang) in view of Endoh et al (US 4,924,328 A; hereinafter Endoh).

Regarding claim 112, 124, 125, 136, 137, 143 and 157, Chang discloses:

A method for extracting content distribution information from a copy of content (recording content distribution information in an adjunct to content) (see, e.g., Para [0012]), comprising: sequentially performing a functional transformation on and extracting content distribution information from an adjunct to a copy of content, wherein the adjunct contains copier related information (see, e.g., Para [0012], where registered users is an indication of producing successive authorized copies and storing user data in the embedded watermark corresponds to the recited copier related information; see also paragraphs [0048], [0050], [0052] and Fig. 5, where a functional transformation is illustrated).

Chang, however, does not expressly disclose that to perform inverse transformation on an adjunct to a copy of the content in order to extract (i.e., retrieve) information of an original copy of the content.

Endoh discloses a recording/reproducing system which inhibits recording/reproducing based on a predetermined restriction by encoding the information source signal (see, e.g., Summary of the Invention, ¶ 15, 24 and 25). Endoh further discloses that for the purpose of encoding the information signal, an exclusive–OR operation is performed on

the information signal and the ID signal of the encoding device (see Detailed Description, ¶ 7 & 8, where the ID signal is unique to the encoding device and corresponds to the recited copier related information). Endoh also discloses that for the purpose of reproducing the information source inverse exclusive–OR operation is performed (see Detailed Description, ¶ 19-22).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement an embedding XOR operation instead of a conventional addition operation as taught in Endoh and also utilizing and inverse transformation to extract original copy of content information, in the system of Chang. This implementation inhibits and discourages unauthorized copying of copyrighted products (see Endoh, Detailed Description, ¶ 10).

Regarding claim 114, Chang discloses:

The method according to claim 112, wherein the modified adjunct is provided with the copy of the content (see Fig. 5 through Fig. 7).

Regarding claims 116, 129, 140 and 147, Chang discloses:

The method according to claim 112, wherein the adjunct is a watermark embedded in the content (see [0030]).

Regarding claim 126, Chang discloses:

The method according to claim 125, wherein the functional transformation was used to modify the adjunct with copier related information upon each successive generation of an authorized copy of the content originating from the original copy of the content (see [001]-[0014]).

Regarding claims 117, 130, 141 and 148, Chang discloses:

The method according to claim 125, wherein the adjunct is meta data associated with the content (see [0010] and [0012]).

Regarding claims 118, 131, 142 and 149, Chang discloses:

The method according to claim 125, wherein the adjunct is a signature related to the content (see [0012], where the watermark stores the user ID of a registered user).

Regarding claim 119, Endohl discloses:

The method according to claim 118, wherein the signature is a message digest or a hash value calculated using the content (see Detailed Description, ¶ 7, where the code which is inherent to individual recording/reproducing systems added to the information signal corresponds to a message digest or a hash value).

Regarding claims 120 and 132, Chang discloses:

The method according to claim 125, wherein the content is copyrightable material (see [0008]).

Regarding claims 121 and 133, Chang discloses:

The method according to claim 125, wherein the copier related information includes information of a user identification associated with a user of a copier used for generation of an authorized copy of the content (see [0012]).

Regarding claims 122, 134 and 153, Chang discloses:

The method according to claim 125, wherein the copier related information includes information of an IP address associated with a copier used for generation of an authorized copy of the content (see [0036]).

Regarding claims 123, 135 and 144 , Chang discloses:

The method according to claim 125, wherein the copier related information includes information of a copy device used for generation of an authorized copy of the content by a copier (see [0036]).

Regarding claims 138, 150 and 151, Chang discloses:

The method according to claim 137, wherein the adjunct is further modified to include information indicating an approximate time when the functional transformation is being performed (see [0013] and [0030]).

Regarding claim 139, Chang discloses:

The method according to claim 137, wherein each network node relaying the packet of data through a network to a final destination performs the functional transformation on the adjunct to content in the packet of data so that the adjunct is modified to include identifying information of all such network nodes by the time it reaches the final destination (see Fig. 1, [0009] and [0029]).

Regarding claims 154 and 161, Chang discloses:

The method according to claim 143, wherein the method is performed by a BOT on the network (see [0030], where the software provided by the owner of the content corresponds to the recited BOT).

Regarding claim 155 and 156, Chang discloses:

The method according to claim 154, wherein the method is performed by the BOT on each packet of data encountered by the BOT while scouring the network so that the content distribution information determined thereby is useful for determining a network

topology for the network and determining supernodes in the network (see [0012], where the transmitted packets associated with the digital product are used to track the distribution of the digital product. Each packet header contains the addresses of the origin and the destination network component which can be used to determine the network topology and information about the sending and receiving components; [0030], where the software provided by the owner of the content corresponds to the recited BOT).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ABDULHAKIM NOBAHAR whose telephone number is (571)272-3808. The examiner can normally be reached on M-T 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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